

P R E S T R E S S E D
C O N C R E T E



T E C H N O L O G Y

Automatic Hydraulic Pump, Control and Measuring Unit Type 77-043.00

for 30/60/140/180/200/250 kN
Two-Hose Stressing Jacks

TENSA SM 240 kN

TENSA 220 kN Overstressing Jacks



Application

The hydraulic pump, control and measuring unit is suitable for the operation of all stressing jacks with two-hose connection (two-hose stressing jacks).

It can also be used for detensioning cylinders in conjunction with valve unit 78-072.00.

Control is effected on the stressing jack or on the hydraulic unit (option) by means of two push-button switches with the functions:

Stressing

Pulling of the prestressing wire/strand. The stressing pressure is infinitely variable between 0 – 450 bar.

Retraction

Retraction is effected following lock-off (seating of the anchor wedges within their tapered holes) after a permanently set delay period. The retracting pressure is infinitely variable between 0 – 150 bar.

The instrument panel at the front end incorporates the following control elements:

- Indicating instrument (pressure gauge or optional digital display)
- Adjustable pressure relief valve for setting the requested stressing pressure, i.e. stressing force
- Return-flow indicator for checking the proper function of the unit.

A large-volume 100 litre tank (useful oil capacity 50 litres) prevents excessive oil heating and so ensures a long service life of the hydraulic oil which reduces wear of the hydraulic elements to a minimum. The hood can be tilted forward and backward for quick and easy access to the electric and hydraulic part of the unit.

Large wheels provide ease of movement even over rough ground.

The electric warning light flashes when the unit is in operation and so contributes to increased safety.

The optional jack lifting unit is recommended for the suspension of stressing jacks from approx. 25 kg in weight.

The pump unit is available with a 5.8 l/min. or 8.4 l/min. high-pressure pump, driven by a directly (not star-delta) started 3.0 kW (5.8 l/min.) or 5.5 kW (8.4 l/min.) motor.

Optional accessories

The pump unit 77-043.00 is available with a variety of optional features, such as digital display, pressure recorder, pneumatic tyres, remote controls, double connections with electrical or manual changeover facility, jack lifting unit, etc.

Technical Data

Drive

Three-phase motor, 3 kW or 5.5 kW, standard 400 V/50 Hz
24 V control voltage. The motors are started directly.
Other voltages, tropical insulation etc. are available to order.

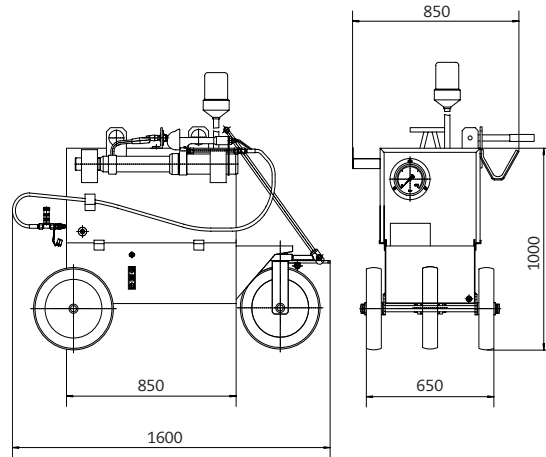
Hydraulic connections

Pump unit:

Ordering data – Connection system PN 450 (SVM 3/8" + TM 3/8") 77-134.43
Connection system PN 700 (PIM 3/8" + PIS 3/8") 77-134.42

High-pressure pump

- Delivery flow 5.8 l/min. (3 kW) or 8.4 l/min. (5.5 kW)
- At a frequency of 60 Hz, the delivery is some 20 % higher in each case
- Max. working pressure 450 bar
- For hydraulic oil, see Lubricant Chart B 541.01/2
- Useful oil capacity approx. 50 l
- Oil filling approx. 90 l



Weight of pump unit without oil filling, without stressing jack		
l/min	without jack lifting unit	incl. jack lifting unit
5.8	207 kg	410 kg
8.4	217 kg	420 kg



Digital pressure gauge



Pneumatic tyres

Packing data of 77-043.00 (L x W x H)		Weight
without jack lifting unit	139 cm x 91 cm x 129 cm	106 kg
incl. jack lifting unit	150 cm x 115 cm x 129 cm	125 kg